





EVERY MAN HIS OWN PAINTER!

C35

OR

Paints--How to Select and Use Them.

A PLAIN TREATISE

ON

Homestead, Villa & Cottage

PAINTING,

CONTAINING INFORMATION VALUABLE TO THE

HOUSEHOLDER AND PRACTICAL PAINTER.

BY THE AUTHOR OF

"HOUSE DECORATION," ETC.

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> H. C. BAIRD, Industrial Publisher

PREFACE.

Being in constant receipt of inquiries from city and country as to the proper colors to select for painting homesteads, cottages and villas, to obtain the best results which harmonious combinations can effect, and, as these inquiries, when from country residents, are usually accompanied by requests for direction as to the quantity of color requisite, and its application, involving details too lengthy for written answer. I have thought it well to compile such information as seemed most appropriate, in the present handy printed form.

This pamphlet has little claim to originality or thoroughness; it consists mainly of suitable extracts taken by kind permission of my publisher from my other works, and I must refer those who desire more complete information as to the laws of harmony, combinations of color, selection of appropriate furniture, carpets, etc., to their pages.

In the advice given as to the selection of painting material, I do not profess to speak "ex cathedra," but only to express opinions which I think, without egotism, my long experience, study and opportunities entitle me to form and give.

THE AUTHOR.

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CHAPTER I.

INTRODUCTION.

Although in Nature's world all is harmony, and the eye dwells with pleasure upon the handiwork of God, fresh from His creative and unerring hand, this regard for beanty seems to cease when human design is brought to bear upon the embellishment of our homes or structures.

When we remember that the lesson of harmoniously blended coloring is taught us at every step by an artist Divine in power and taste, we may well feel wonderment that the imitativeness of man has not made him an apter pupil when seeking to beautify the work of his own bands. In nothing does this want of harmony obtrude upon and offend the eye oftener than in house painters' ornamentation. This proceeds either from absence of taste on the part of the owner of the property, under whose direction it is done, or lack of knowledge in the mechanic to whose unrestricted judgment the work is often left. To correct the evil pointed out, this pamphlet has been written, in the hope that it may act as a guide to those who may be called upon to decide either for themselves or others, on matters of decoration.

CHAPTER II.

EXTERIOR PAINTING.

Where so much depends upon varying place, outline and surroundings, it is difficult to lay down any strict or settled rule as to outside painting; but certain it is that judicious selection of color is most important-since, by taste, the modest dwelling may be enhanced in beauty, while, by its want, a mansion, otherwise bandsome, may be reduced in appearance to the level of a barn. Nothing, certainly, can be worse than the choice of a dead white for outside coloring; it is not in harmony with the sunlight, and surfaces so painted have an appearance most distressing to the eye. We have no warrant for it in the landscapes nature has spread around us. There, wherever we turn, nothing glaring or obtrusive meets us-all is blended together with soft and grateful coloring. Between a building and its surroundings there should undoubtedly be a contrast; but one that is subdued, not conspicuous. A tiny flower springing up amidst the grass may present a snowy speck, but that is a far different matter from the sharp outlines of an extensive building. Follow nature if you will, but be sure not to misread her teachings. Under no circumstances, therefore, should white or any distinct, cold or formal color be more than very sparingly employed for outside decoration. Let there be a gentle blending with the view around, making your house prominent if you so desire; improving its architectural points; toning down its barsh irregularities; but let the prominence be subdued, and not thrust itself before the passer-by in conspicuous evidence of bad taste.

The objections against employing white for outside purposes apply with equal force to other primary colors—they are all too conspicuous and formal in appearance. Yellow is the only one which can be tolerated, and even the shade of that must be carefully selected, or better left alone. Gray also is objectionable, being cold in appearance and especially inappropriate where green is present.

To the eye of taste nothing is so pleasing as a warm drab or fawn color, or what are usually known as neutral tints, the shades of which, for better guidance and illustration, we give upon the following page, taken by kind permission of Messrs. Harrison Brothers

SAMPLE CARD

"Town and Country" Ready Prepared Paints, For HOMESTEAD, COTTAGE & VILLA USE, Manufactured by HARRISON BROS. & CO., PHILADELPHIA & NEW YORK.



& Co., from their published list of "Town and Country" paints, which being generally considered standard where decoration is concerned, we have thought appropriate to select.

The tints given may be employed with harmony and effect in a variety of combinations, but some of them (such as 35 and 36) are, of course, not intended for exterior painting. They may also be mixed or recombined so as to produce others.

For houses partially surrounded by foliage, either No. 8, 9, 10, 11 or 12 may be used with good effect for body color; they harmonize well with green, give a warm, cheerful appearance, and accord with either a summer or winter landscape. For the trimmings, (door frames, cornices, window frames, etc.), 7, 14, 15 or 31 may be taken; and for the blinds, 8 or 9. Green may also be used with propriety and good effect for blinds when any of the yellow shades are employed as body colors. Pleasing combinations may be arranged by using some of the olive drabs for trimmings.

For houses standing alone and conspicuous, nnscreened by foliage, the gray or drab shades should be taken, either 2, 3, 4, 5, 19, 20, 21, 22, 23 or 24; say, for instance, No. 22 or 24 as the body color, 20 for trimmings, and 21 for blinds; or 5 as the body color, 15, 16 or 92 for frames and cornices, and 17 for the blinds. Or again, say 21 for body color, 5 trimmings, and 17 or 23 for blinds. Green must never be used with these tints, as the contrast would be exceedingly discordant.

Where a residence does not stand alone, sameness should be avoided by the selection of colors differing from those of the house adjoining.

When, as in the case of a farm-house, out-buildings are clustered near the principal structure, although a general harmony should pervade the whole, it is not expedient to employ any one shade for all; each, except, perhaps, the minor buildings, should have a distinctive appearance given it by the use of different shades of color, selecting the lightest for the main edifice, without, however, making too marked a contrast.

The shades, Nos. 8, 9, 10, 11 and 12 would be too obtrusive and glaring if used as body colors for the exterior of residences which happen, by standing alone and unscreened by foliage, to present conspicuous objects in the kindscape. They would, in such cases, be almost as undesirable as white, and should never be employed on extended prominent surfaces.

On the other hand, as neither gray nor drab have harmony with green, their shades should not be used where foliage is present in any marked quantity; nor may green be employed with them for blinds.

It has hitherto been very common to use green for blinds irrespective of what the contrast may be with the body color of the house; but as nature is usually lavish with it herself, that alone is sufficient reason why it should be only sparingly handled for outside painting. We have already shown where its use is judicious and of good effect.

The shades of gray Nos. 2, 3, 4, 5, should not be combined for body and trimmings as the effect is disagreeable. They look better in contrast with other tints.

Where it is not desired to make the residence conspicuous, Nos. 15, 16, 17, 19, 20, 21, 22, 23 or 24 are suggested as quiet, unobtrusive shades.

For window sashes white may generally be employed with good effect; but they should, at any rate, be of a shade lighter than that used for the window frames; and when a yellow lint is taken for the body color, white must be avoided on the trimmings, and a bright greener substituted, especially where the house is not surrounded with foliage. If natural greener is then a rich shade of brown makes handsome sash-work.

For roofs, LLE should have the preference, not only for the sake of effect but to prevent, as fa 31. Should have the preference, not only for the sake of effect but to prevent, as fa 32. Should have the preference, not only for the sake of effect but to the wood or more the leakage likely to be caused by contraction and expansion use heat of the sun, also to moderate the temperature of upper rooms, Nos. 10, 11, 12, 17, 23 and 24 may be mentioned as suitable.

We have not attempted to give any extended list of the combinations which may be employed for exterior painting. They can be varied according to taste by taking, if desired, some of the darker tints for body colors and the lighter for trimmings and blinds, merely taking care to observe the general rule we have explained as to which are proper, and the reverse. But it must be always remembered that harmony is attainable by contrast, as well as by analogy; that is to say, not by the employment only of colors which are of kindred nature, but the grouping also of those which are dissimilar, provided the latter are really such as harmonize when combined.

CHAPTER III.

INTERIOR PAINTING.

It must not be supposed that a well arranged and pleasing home need be peculiar to the wealthy only. It does not depend so much upon the cost of the furniture. Who is it that has not entered rooms richly equipped, which, from their stiff, cold look, made the visitor feel utterly unconfortable? while, on the other hand, many a modest home, by simple taste and the touch of a woman's hand, has an air of comfort and beauty imparted which no mere wealth could give. To produce these chaste results, walls, furniture and carpets should be decorated and chosen of colors which will harmonize. To aid those whose eye or education may not have been cultivated, it is our purpose to give some requisite hints.

The primary colors, red, blue and yellow, from their brightness, should not be brought into conspicuous prominence; neither should sombre colors predominate to the exclusion of all that is cheerful. The true use of either showy or neutral colors consists in moderation; both are well in their places, and require only judicious combinations for the eye to be pleased and an air of real comfort produced.

It is difficult to lay down any formal rules which shall apply to general decoration, because that which would be harmonious and proper in one case, and under certain circumstances might be most inharmonious in another where the conditions varied.

If it is desired to paint the walls, some of the light, cheerful shades, given on our card of tints, are very pleasing, while contrast may be made by other colors upon panels, mouldings, etc.

The tone of color should be fixed by the furniture, and this ought to have particular reference to the aspect; because the furniture of a room may be considered, in regard to coloring, in the same light as a key-note in music, or as the principal figures in a picture; and the general tone must, therefore, depend upon the colors of which it is composed; for instance, if the prevailing color be blue, gray, cool green or lilac, the general tone must be cool; but if, on the other hand, it be red, orange, brown, yellow, or a warm tint of green, the tone must be warm. But, as stated before, there can be no pleasing combinations of colors without variety. This, by judicious management, may be given without in the least interfering with the tone, for it is merely the general color of the furniture which ought to fix the tone, and there may be the most decided contrasts in its parts, which, by the introduction of proper medial hues throughout the room, can be reconciled and united. Apartments lighted from the south and west, particularly in a summer residence, should be cool in their coloring; but the apartments of a town house ought all to approach towards a warm tone, as also such apartments as are lighted from the north and east of a country residence.

CHAPTER IV.



SELECTION OF MATERIAL.

It will be obvious to all our readers, whether professional painters or not, that no suggestions or advice which we can give for their guidance in matters of decoration will avail to produce good effect unless proper material be employed to carry out the work. This portion of our task, advice as to selection of material, is therefore most difficult and important, as we must decide impartially and without favor between many contending claimants.

To illustrate our difficulty in this respect we may say that probably in no article of commerce is adulteration carried to a greater extent than in paints. In the case of almost any other manufactured article there is a chance of obtaining something at least approaching that which we ostensibly buy; but this is by no means certain where pigments are concerned. It is well known to the initiated that hundreds of tons of so-called white lead, etc., are sold annually that do not contain one particle of what their labels profess.

In large cities such as Philadelphia and New York, this is well understood, and goods of the class referred to do comparatively little mischief, because all but those produced by well-known and reputable houses are avoided; but large quantities find their way into the country districts, forced into notoriety by wholesale puffing, and generally displaying a showiness of label which increases in proportion to the vileness of the mixture. We would especially caution our readers against these.

How important this question of adulteration is will be seen from the following example. In a future chapter we shall give some directions as to the quantity of paint requisite for a given surface. Now our rule will be based upon strictly pure and standard material, and it is obvious that if the same rule is applied to an article containing from fifty to seventyfive per cent. of adulteration and useless matter, the calculation will be valueless and disappointment certainly result; for this reason, and on the score of economy also, we cannot too emphatically urge those consulting our pages for advice, to buy, for good work, naught but good, pure material, the production of standard well-known makers; it will be cheaper and more satisfactory in the end, no matter how much apparently lower in price, and however speciously urged the adulterated compounds may be. It must be remembered that the expense of painting does not consist so much in the cost of material as in that of labor, and the latter becomes considerably diminished when the paint is such that it can be applied with a proper regard for true economy.

There are, of course, many purposes where, as for rough work, a *cheap* paint may be employed to advantage, and a *pure* would be comparatively thrown away, so we must not be understood as condemning *all* such mixtures indiscriminately; but in buying them care must be taken to ascertain that they have been prepared by some reputable manufacturer, who, while making no pretensions to purity for the article, will make the quality follow at least in the ratio of the price to purity, and not give *all* adulteration for the money paid.

CHAPTER V.

WHITE LEAD.

Notwithstanding the great number of so-called white lead manufacturers existing, the majority of them are so in name only. Its production constitutes a most important branch of industry, but one in which, owing to the large capital requisite, and length of time before the finished article can yield return, only a few powerful firms are engaged.

The actual corroders of lead doing business in New York, given, not in order of precedence, but alphabetically, are

> BATTELLE & RENWICE, HALL, BRADLEY & CO., HARRISON BROS. & CO., J. JEWETT & SONS.

THE ATLANTIC WHITE LEAD CO. " BROOKLYN " " " " UNION " " "

In Philadelphia.

HARRISON BROS. & CO., JOHN T. LEWIS & BROS. WETHERELL & BRO.

Boston, Pittsburg, Baltimore, St. Louis and other large cities, each contain one or two firms, who are actual corroders, but all the remainder, and their name is legion, who claim to be manufacturers are either grinders, who purchase dry lead from one or other of the corroders and mix or adulterate it to suit themselves, or else dealers, who have brands put up for them under their own labels.

All of the corroders mentioned, no doubt, grind low grades for the trade; but their own brands of *pure* lead, that is, those which bear their names, may, in all cases, with confidence be relied on as strictly what is claimed. There is much rivalry as to the merits and demerits of these brands; but it is more among the consumers than the corroders themselves; the latter are, as a class, conservative, and look quietly on, fully satisfied that there is room enough for all; the former vaunt the particular brand they are accustomed to use and constitute themselves its zealous champions, although they know nothing, probably having never tried, the merits of the others. The truth is that prejudice bas more to do with this favoritism than merit.

There may be some slight difference in the mode of preparation and grinding, but they are all ξ od, and all, as we have said, undoubtedly pure, so that the consumer is safe in selecting any.

The following extract is taken from an article on white lead appearing in the Guide for Coach Painters, by Arlot: "One brand will have the preference and almost exclusive sale in one section of the country and be almost unknown in another. The oldest and among the most widely distributed is that of Harrison Bros. & Co., and it is usual with those who are about having painting done and are particular as to the work to insert in their contracts that only this brand be employed; but the preference so often given to it is not due to a degree of purity over the others, as all are pure, but merely to the extreme and peculiar care given to it while passing through the various stages of washing, drying, grinding and preparing for market, the result of an experience of over sixty years devoted to the business." The brand here referred to, and indeed, most of the really standard American, compare in all respects with the best English; and, indeed, cannot be told from them even by the most expert judges apart from the original packages which are, of course, in themselves distinctive. A preference is given by some to English leads over American, and it is due to a fear either of not procuring what is strictly pure or to a prejudice which many entertain for whatever is foreign; the former is owing to the number of brands put into the market here by irresponsible makers, who, sheltering themselves behind some highsounding title or company, have not besitated to employ adulteration, thus casting reproach upon American manufactures. It is however an entirely groundless fear since all doubt may be avoided by taking only the standard brands of actual and responsible corroders. The latter is a prejudice hard to combat, but most ridiculous in its effect, since hundreds of tons of so-called English lead, which never crossed the Atlantic, are yearly put up under closely imitated packages and brands and sold to the admirers of foreign material, who, in consideration of its supposed foreign origin, accept its quality with amusing faith, pay for material really American and by no means the best (since there is no local manufacturer's name upon it to be injured by inferiority) a foreign and higher price than they could have bought the self-same article under its proper name, if their fancies had not interfered to make them hanker after something which smacked of abroad. Meanwhile those in the secret laugh in their sleeves to hear the loud commendations of English (!) lead and the announcements made of its superiority to every thing American. This, we believe, would apply to many other articles than white lead if the mysteries of trade were only fully known.

No one need hesitate between home and foreign white lead, unless bigoted blindly in favor of whatever savors of European manufacture. Use the brands of responsible, wellknown corroders, and there need be no fear of adulteration or any question as to quality.

From what we have said, it will be apparent that to procure good work or satisfactory results, it is of first importance that material *known* to be good should be employed. The painter should, for his own and his credit's sake, purchase nothing else; and the owner

should, for the same reason, permit this only to be used upon his work. If lead is to be employed let those requiring painting done stipulate for their own protection, either by bargain or contract, what the brand shall be, and thus guard against the employment of pigment, which, by being perhaps only second-rate, may cause the work to speedily require redoing. We may here remark that all strictly pure leads are always of precisely the same price, and if not kept in stock by local dealers, can always be procured by them; so there is no reason why the property owner should be restricted to any particular brand against his wish or taste.

A painter can easily mix two pots of paint, of which no one, not even a painter himself, unless of much experience, could, in looking upon them, form an opinion as to their comparative value; yet it might be only as one to two. Now, the paint in the one pot, that was not above half the value of that in the other, would, from its want of density and body, spread over a much larger surface of work than the more expensive mixture, and it cannot be examined after its application to find out its quality, nor can the quantity of material in a given surface be guessed at, so that the painter may either receive the same price per yard for t' greater number produced by the pot of low priced paint that he would receive for the smaller number produced by the pot of high priced paint; or may reduce his rates in proportion to the saving effected in material and workmanship. This is one cause of such differences being found in the estimates of painters when brought into competition for work. The most unscrupulous have always the best chance where no other distinction except that of *price* is made. It shows the importance of stipulating for the employment of standard brands of lead only, such as "Harrisons'," "Brooklyn," "Jewett's," or "Union."

CHAPTER VI.

COLORS.

When we come to colors the difficulties besetting the consumer are greatly increased. The etiquette and profession of the trade is that the manufacturer's name attached to **a** brand shall indicate purity, but in practice it is found only to represent, in a number of cases, the best grade made by the particular manufacturer, and not by any means to guarantee absolute freedom from adulteration. The competition is keener than in the case of white lead, and those engaged in the manufacture being unequally matched, so far as producing facilities are concerned, some appear to be compelled to resort to cheapening devices to prevent, temporarily, their being driven to the wall. Take, for instance, chrome yellow; we have seen the analyses of several leading brands, in which as high as forty per cent. of adulteration appeared, yet they bore responsible makers' names upon them.

As in the case of white lead, the number of those claiming to be manufacturers is extremely large, but the actual makers of colors doing business in New York, taken, not in order of precedence, but alphabetically, are

> F. W. DEVOE & Co., Harrison Bros. & Co., Hainemann & Steiner.,

C. T. REYNOLDS & Co., D. F. TIEMANN & Co.

In Philadelphia.

HARRISON BROS. & CO., J. T. LEWIS & BROS., JOHN LUCAS & CO.

Most of the other large cities of the Union contain probably one or two firms who are actual makers of colors, but the remainder are either grinders who buy the article ready-made from the manufacturer and adulterate it or mix it to suit themselves, or dealers who have brands put up for them under their own labels.

All the color makers whose names we have given are reputable firms, and although they no doubt produce for the trade low grades of goods, their own first brands may be relied upon, even though there may be, in some cases, a departure from strict purity. Many of the large paint grinders are also perfectly reliable and stand in perhaps as good a trade position as some of the smaller actual manufacturers, and their names are a guarantee for good material.

Each color maker has a speciality, particularly in permanent green, and there is a rivalry amongst their patrons similar to that we have referred to as existing in the case of different brands of lead. Some painters use "Magnesia," or "Reynold's Emerald," others give a preference to "Hampden," while many will have nothing but "Harrisons' Sylvan," or "Lisle," or "Devoe's Park Lawn." All of these favorite greens are good, and there are some additional brands which are also reliable.

As all the brands mentioned are meritorions, each possessing some special and distinctive feature, either in shade or other quality, it is hard to discriminate between them. The greatest rivalry is on the question of permanency, and on this point some practical experiments have been tried with the following results: Samples of the principal greens in the market (all of which bore upon their labels emphatic claims to permanency) were taken and boiled in water. It was found that all lost their bright color and some assumed a dirty yellow tinge, with the exception of those made by Harrison Bros. & Co., which remained unchanged. Their Sylvan and Lisle samples were then tried in boiling oil, (which admits of a much higher temperature than water), but no alteration of shade was apparent. A similar triat was then made by placing the different samples on live coal, but with the same result, all lost their color except the Sylvan and Lisle. These greens seem therefore to have the superiority, at least for hot and dry climates, and it is understood that they stand the extremes of cold and damp as well as heat. This superiority is probably owing to the manufacturers being *clemists* as well as color makers, and thus able to better combine the material employed.

Were we addressing solely a New York or other large city circle of readers, where skilled labor and good material can at all times be procured, we might consider the hints given as sufficient, but as our treatise will probably reach a country circulation where the labor procurable is often the reverse of skillful, and the material, if accessible at all, the reverse of good, we must go further in our advice.

All the shades of color shown on our eard of tints may be produced by mixing various pigments in proper combinations; but, as these combinations, in the first place, require some experience which it is impossible to impart on paper, through written rules, and as, moreover, the material available in country districts would probably be variable in quality, and the means of properly combining it wanting, a class of pigment of a more practical kind has been found necessary in the shape of a paint ready mixed in certain shades, and in a state to be used without further preparation except the addition of oil and turpentine; and this want has been well supplied by Town and Country paints, the property of Harrison Bros. & Co., whose sample card we have adopted, as already acknowledged, for our standard and means of illustration.

Although primarily intended for country use, and especially adapted for those who desire a paint, ready prepared, which can be applied by any one without experience, so convenient has the application of these paints been found, and so beautiful and lasting are the tints which their process of mixture procentes, that they are also largely coming into use even in towns where other material and competent labor are procurable; and this is not to be wondered at when we consider that no painter can expect to make his combinations by merely manual means so well as they can be effected by the use of powertul mills and machinery specially adapted for the purpose.

Numerous efforts have been made to perfect paints thinned with oil and entirely

ready for use, because such a form of paint appears, for plausible reasons, to recommend itself and offer advantages at least to the country consumer; not only, however, are the seeming benefits from such a form of pigment entirely without good foundation, but any proper attainment of the end in view is, from several causes, impossible.

The fault inherent in all such paints is that they become, in time, what painters call "tacky" or "fatty:" the oil loses its fluidity and freshness, becomes gummy, and so unfit for use that even experienced workmen cannot execute good work with it.

Paint so prepared may be fair in quality when first put up, but no one can tell how long the packages of it have remained in the manufacturer's hands, or how long after reaching the dealer they may have been kept in stock. After standing for a while the heavier particles settle naturally to the bottom, and form a thickened mass, with the oil upon the top, which it is more difficult to bring back into a proper consistency, than to mix entirely fresh paint.

Even were good pigment in such shape possible it would not be desirable, for all that it can, at the best, claim to save is the trouble of adding requisite oil. This is much more than counterbalanced by the objections against it

The mixture is made, by the addition of oil, to assume a bulky form, rendering necessary an increased cost for transportation and package, when the simple thinning needful, oil and turpentine, could, in most cases, be bought much cheaper nearer at hand.

Each coat of paint upon any surface, from priming to finish, requires a different eonsistency; but a paint bought ready mixed can, of course, only be of one consistency, and, even if adapted to one class of coating, must, after all, require modification for the others, according to the work it is intended for.

Such paints are far from having any advantage in point of economy. It is represented that a given number of gallons will go further in covering surface than the same number of gallons of pure lead thinned with oil, and that, therefore, the former is the cheaper of the two. This is ingeniously put forward, and the assertion as to mere covering power possesses really a morsel of truth; but the *cause* is carefully kept in the back-ground. The simple fact is that the mixed paints in question are not formed from lead at all, nor do the originators of them claim such to be the case. Their base is *zinc*, not *lead*, and every painter knows that the former, so far as mere coating over a surface, will go further than the best pure lead; but this single quality does not determine the superiority of zinc as a pigment, or settle its value as compared with lead; so that a comparison between these ready-mixed zinc paints and pure lead is not proper unless *cverything* be taken at the same time into consideration. The comparison should be between zinc and zinc; this alone would make the conditions equal, and the result would be greatly in favor of paint prepared from lead, ground in oil, but *not thinned*.

Several descriptions of these ready-made paints have, from time to time, been put upon the market with claims to cheapness, durability, beauty, and wondrous chemical properties; and by dint of advertising in country papers, backed by the usual array of testimonials, have secured some little patronage from the inexperienced. But, as common sense teaches us that no chemical agency can hold a heavy body in suspense in a lighter, and thus annihilates any pretensions to such paint remaining homogeneous after standing any length of time, so does the practical experience of every painter show that the fattlness from such pigments, when not brought speedily into use after being put up, is detrimental to good work.

We have, so far, in referring to paints sold *entirely* thinned, taken it for granted that they are (as they claim) prepared with *linsecd* oil; but this is seldom the case. Kerosene and other mixtures of the kind are commonly resorted to for the purpose of cheapening. There is, of course, no danger of trash of *this* description becoming "fatty," or losing any virtue, for the simple reason that it never had any!! and it is equally certain that pure lead and good oil cannot be expected to come out with advantage, *in nominal cost*, from a comparison so unequal. Who, however, would *knowingly* buy a kerosene paint, if it was plainly called by that name instead of some chemical or well sounding title? With such paints the injunction is generally given *not* to use *oil* but turpentine, if further thinning should be requisite; and why? because oil will not mix with the trash employed.

"Town and Country" paints are ground in oil, but not thinned to the consistency requisite for immediate application. They are adapted either for town or country use, are made from good material, may be self-applied, and all the objections which we have enumerated as existing against paints already thinned are obviated. To prepare them for painting it is only necessary to add linseed oil, raw in dry weather, with the addition, in damp, of Patent Dryer, or of one-third boiled oil, it having drying properties. A little turpentine may also be used, (say one quart to each gallon of oil), it being only about half the cost of oil, and not injurious to the paint. First coats always require a thinner coat than the succeeding, especially on plaster walls or new wood, which are absorbent. The proportion of thinning requisite for 100 pounds of these paints for first coats will range from about 51/2 to 61/2 gallons, according to which tint may be employed, as some require less oil than others; second coats from 41/2 to 51/2 gallons. Turpentine may be mixed in the proportion of one quart to a gallon of oil. They are prepared in all the shades shown on the eard, and can be procured in any quantity by merely stating the number affixed to the tint desired. Being always made according to a certain fixed formula, further supplies can be had at any time of exactly the same shade, without the least variation. As pigments they have many desirable qualities to recommend them for either indoor or outside work: their smooth, elastic, glossy surface does not crack or peel, they are found to be almost entirely indestructible, and will certainly stand exposure to the action of the elements far better than any ordinary paint prepared in the ordinary way. They form an admirable protection for roofs; have an affinity for iron which makes them excellent preservatives, and hence are adapted for coating vessels, freight cars, etc. Their richness and purity of tone commends them to the eye of taste, and they are, at tho same time, so reasonable in price that none-need plead expense as a reason for not making their dwellings elean and sightly. The introduction of these pigments certainly forms a new era in decoration.

One hundred pounds of the "Town and Country," with oil and turpentine added in proper proportion, may be estimated as sufficient for one coat on about 750 square yards of surface; if two coats are to be given, this quantity of paint will cover about 450 yards; or three coats, about 300 yards.

At the price at which these paints are sold, the cost of material, oil included, sufficient to give the exterior of an ordinary honse two coats, would be only about 33, so that there can be no excuse for neglecting this necessary and cleanly work, and preserving property many years from the action of the elements.

On an average the "Town and Country" paints cost, when ready thinned for use, about \$1.50 per gallon Take, for instance, No. 7:

100	pounds	8 77.	ould	cost	in	k	eg,		-	-	-	-		-	-	\$	10.00					
6^{1}_{22}	gallons	of	oil,	at s	ay	\$1	.00,	-	-	-	-	-	-	-		-	6.50					
2	6.6	of	turj	enti	ne,	at	say	.75,	-	-	-	-	-	-	-	•	1.50					
																\$18.00						

The above would be equal to about 13!4 gallons of mixed paint, at the rate of \$1.33 per gallon, whereas, from \$2.25 to \$3.75, and even \$10.00 per gallon, is charged for paints sold ready thinned. A difference of from \$1.00 to \$8.50 per gallon paid by the credulous consumer, and for what? the mere (unadvantageous) addition of thinning, generally impure.

It is only elaimed for ready thinned paints that a gallon will give two coats on from 20 to 26 square yards, but 100 pounds of "Town and Country" mixed as above, are sufficient for two coats on 450 yards, or an average of 3314 yards (two coats) to the gallon, so that the pure material shows a gain not only on cost per gallon but on surface covered

CHAPTER VII.

ORIGIN AND PRODUCTION OF PAINTS.

Even amongst professional men, who daily handle the pigments in their trade, there is a very general lack of information as to the mode of production, yet the subject is full of importance, involves large business interests, chemical knowledge and scientific skill. It has, besides, a special bearing upon questions of cost, permanency and quality, which should be weighed when considering what to select or to avoid.

Desiring, in placing before our readers information on the subject, it should be of the best and latest which chemistry has developed, we visited one of the leading manufacturing establishments, that of Harrison Bros. & Co., in order to confirm and increase our knowledge.

It will be seen by reference to our lists of the actual corroders of white lead and manufacturers of colors doing business in New York, that only this one firm appears in the duplicate capacity, and when we add that they are also extensively engaged in the manufacture of the very chemicals which form the base of colors, their advantage over all others engaged in the business will be apparent. A visit to their works, in fact, comprises everything that could be seen by taking separately a number of different establishments having only a limited specialty each. To illustrate this let us take the article of white lead. Although there are, as we have already shown, several bona fide corroding firms, they have all either to buy the acetic acid necessary, or at any rate the acetate of lime from which the acid is made, but Harrison Bros. & Co. produce both upon their own premises, and have hence an obvious advantage not only in cost, but in saving of transportation. Then again in colors, as no manufacturers besides themselves (except J. T. Lewis & Bros., of Philadelphia,) are at the same time corroders of lead, and as lead is a base of color, they have also the advantage of supplying themselves with this necessary article, and also of saving costs of drying and packing, as well as transportation upon it. To go further, although there are, as we have shown, many manufacturers of colors, yet all of them, not being also makers of chemicals, which latter enter largely into, and are indeed the component parts of all color, begin, so to speak, only half way instead of at the commencement, whereas the Messrs. Harrison themselves produce all the necessary chemical bases, such as sugars and nitrate of lead, sulphuric, acetic, nitric and muriatic acids, alum, copperas, etc., and save not only the profit upon them but even the expensive crystalization which such articles as acetate and nitrate of lead ordinarily undergo when prepared for the commercial market; also the cost of packing and transportation is saved by the use of articles in the works where made. In ready prepared "Town and Country" paints they have the same advantages. Paints of a similar character are made by other manufacturers, but as none of them are corroders of lead and some of them not even makers of colors, they have to purchase their supplies from outside sonrces, and are thus, of course, unable to compete with Harrison Bros. & Co. on this speciality. In selecting their establishment, therefore, as the source of information as to the details of the origin of pigments, and in taking its products as standards for employment, we have done so in common and impartial justice, and in the interests of our readers only, without intentional slight to the number of reputable but smaller mannfacturers engaged in similar business.

On our visit to the factories referred to we found invoices of crude raw material landing at the wharves to be gradually absorbed according to their nature through the various branches of the works; and after going through process after process, leaving in a hundred different and finished forms.

Nothing wasted; one product formed from another or the combination of several, all dovetailing together and turned to utility by chemical art. One vessel was unloading brimstone from Sicily for the sulphuric acid department; and others, with several hundred cords of wood on board, for the production of pyroligneous acid and acetates of lime, were discharging cargoes, while another laden partly with pig lead was just hauling into her berth. Piled up near the wharf lay vast heaps of clay which had lately been discharged, and was shortly to appear in the market under the form of alum; and near by stood large storehouses filled with Syracuse and Liverpool salt used in producing muriatic acid. Out of these erude materials, with but few and unimportant additions, the White Lead of Commerce, Chemicals and Colors, in numerous and dissimilar forms, are all produced. How they work and interlace one with another, and how, by intermixture of their products, so many different results are attained will be best apparent by the annexed diagram.

We have not space for a detailed description of the various processes involved in the production of white lead and colors, but the chart given will probably convey a clearer idea of their origin than any written explanation.

The heavy line at the foot, marked B (base), indicates the starting point of all color bases and products. It is at this point that the manufacture is commenced at the works we have referred to.

The double lines at top, marked Λ (apex), show the point at which ordinary color makers all begin to manufacture, and some idea can be formed of the number of chemicals on which they have to pay profit, cost of preparation for market, packing and transportation before they can commence the production of colors. This sufficiently illustrates the advantages possessed by Harrison Bros. & Co. in beginning, as they do, at the very foundation, and working from the raw material upwards, and justifies the mention which, in the interest of our readers, we have given their productions.

CHAPTER VIIL

CONCLUSION.

In closing our treatise, let us once more emphatically repeat, that good results can only be obtained by the use of good material, and that it is not the cost of this material, but of *lubor*, which constitutes the main expense of decorating. Good material, indeed, diminishes cost, since it effects a saving of time in addition to the durability it secures. Let those then who may buy pigments for themselves insist upon the best, even though seemingly dear in price as compared with lower grades, and let those who may entrust work to others stipulate for what they may wish employed,* and stand firm against being persuaded out of it, thus insuring themselves against the use of what may be inferior. One, at least, of the local dealers is likely to have all that is wanted, or can casily procure it upon order if desired.

Let us again, remind our readers that the cheerful comfort and soft relief which harmony of color and neat arrangement bring, are owned by no exclusive class, are the property of none however rich, but open to the poor as well as the wealthy, the inmate of the cottage as well as of the mansion. Call in their aid, then, to enliven and make beautiful your homes, and by their influence reach purer and more ennobled minds.

It is not much to say that one half the drunkenness and misery of the world, especially where the working classes are concerned, may be traced to comfortless and cheerless homes.

-Place. -----

-Date.

The undersigned agrees to thoroughly paint the <u>story</u> house, number <u>street</u>, the property of <u>stidy</u>; giving <u>coals</u> coals throughout, and properly finishing every part of said premises in a workmanlike manner, completing the same in <u>coals</u> days under a penalty as liquidated damages, of <u>double</u> dollars per day for non-completion within specified time.

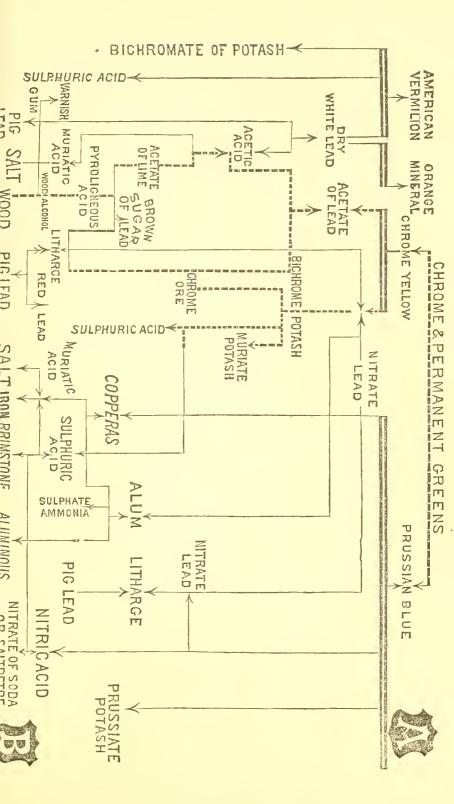
It is further agreed that nothing but ——— lead (insert here Harrison Brothers & Co., or whatever hrand you may desire) for the interior, and ——— green for the blinds, etc, etc, finding all requisite labor and material for the sum of \$——— payable———

[Signed,]

1

^{*}The following is a form of contract which may be used to advantage:

This form may, of course, be varied to suit the requirements of any particular case; the nature, whether external or internal, of the work to be done; but a written contract of this kind is much preferable to a mere verbal bargain. If it is desired that "Town and Country" paints be employed the tints should be specified by number.



A wife with stockings down about her heels is not an exhilarating sight, and when eombined with dirty floor, disordered grate and untidy furniture, small inducement has the good-man to remain after returning from his work, and he too often seeks relief in the parlor of the tavern, which offers for the time being, at least, a sort of delusive comfort. That even poverty is an excuse or renders such thing necessary we emphatically deny. A little paint (which as we have shown can be self applied), a broom, a little soap, a piece of carpet however plain, a flower here and there, might without much cost transform from wretchedness many a lowly home; refine and humanize the dwellers; and, by increasing their self-respect, make them better parents, citizens and men.

To those who have means at command, we would recall what we have elsewhere said that mere profusion of expenditure—gilt by the yard and gorgeous hangings—does not constitute harmony nor evidence of taste. It is well that they who have wealth should by its outlay stimulate art and manufactures, but let them seek by discrimination to guide these into channels of refinement and good taste.

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